



Laboratory program helps Santa Fe company get into space

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Laboratory scientists provided expert help to a Santa Fe-based startup Solstar under a free program for New Mexico businesses, helping the company test their product in space

The company plans to offer commercial Wi-Fi service in space, and was able to test its product on two rocket missions thanks to help from the New Mexico Small Business Assistance program (NMSBA).

Laboratory researchers Justin McGlown and Angus Guider consulted with Solstar on the design of the communications equipment to go in the rocket by modeling a space flight, and also helped determine the number of antennas needed for the system.

The collaboration resulted in two successful test flights with Amazon CEO Jeff Bezos' space flight company Blue Origin.

The NMSBA allows small businesses facing a technical challenge to access the unique capabilities of Los Alamos and Sandia national laboratories for free, and the program has assisted over 5,000 small businesses in all parts of New Mexico since 2000.

"Consultation of Laboratory staff was a huge contributing factor that enabled us to successfully meet our scientific objectives within the exacting spaceflight launch date timelines," says Solstar CEO M. Brian Barnett. "NASA is Solstar's entry customer and the company will be building on the NMSBA-enabled success to obtain additional contracts and commercial customers."

The second of the test flights lasted about 11 minutes and primarily served to test an emergency escape system for the crew capsule for a Blue Origin space craft, but it also served to test Solstar's equipment in extreme conditions.

The flight involved separating the capsule from the booster rocket that had launched it, and igniting a secondary rocket motor to stabilize the capsule before descending to earth. During the flight, the Solstar equipment performed well, and even sent the first Tweet from space.

> Visit [the NMSBA website for more information on the program](#)

Los Alamos National Laboratory

www.lanl.gov

(505) 667-7000

Los Alamos, NM

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